AMENDMENT OF SOLICITATI	ON/MODIFICATI	ON OF CONTRACT	1. Contract		Page 1 Of 17
2. Amendment/Modification No.	3. Effective Date	4. Requisition/Purchase Re		5. Project No. (If applicable)
P00001	2003APR08	SEE SCHEDULE			
6. Issued By	Code W56HZV	7. Administered By (If other	r than Item 6)	I	Code S2404A
TACOM		DCMA MANASSAS			
AMSTA-AQ-ABGB		10500 BATTLEVIEW P	KWY		
ROBERT BEARDSLEE (586)574-8071 WARREN, MICHIGAN 48397-5000		SUITE 200 MANASSAS VA 201	09-2342		
HTTP://CONTRACTING.TACOM.ARMY.MIL			0, 2, 12		
EMAIL: BEARDSLR@TACOM.ARMY.MIL		SCD C	PAS NONE	ADP P	Г нQ0338
8. Name And Address Of Contractor (No., Stre	et. City. County. State and	<u> </u>	-	ent Of Solicitation	
011,4440 1344 1344 135 01 001114001 (1104,5010	et, ettj, evantj, state and				100
TRW INC.			0D D 4 1/G	T. 44)	
TRW SYSTEMS 12900 FEDERAL SYSTEMS PARK DRIVE			9B. Dated (See	e Item 11)	
FAIRFAX VA 22033-4411		X	10A. Modifica	tion Of Contract/	Order No.
			DAAE07-01-F	T 0.01	
TYPE BUSINESS: Large Business Perfo	rming in U.S.				
Code 69736 Facility Code			10B. Dated (Second 2000 DEC 22	ee Item 13)	
	HIS ITEM ONLY APPLI	ES TO AMENDMENTS OF	SOLICITATION	NS	
is extended, is not extended.	ed as set forth in item 14.	The nour and date specified	for receipt of Oi	iters	
Offers must acknowledge receipt of this ame	ndment prior to the hour	and date specified in the solic	itation or as ame	ended by one of th	e following methods:
(a) By completing items 8 and 15, and return	ingcopies	of the amendments: (b) By ac	knowledging rec	eipt of this ame nd	ment on each copy of the
offer submitted; or (c) By separate letter or ACKNOWLEDGMENT TO BE RECEIVED	0				
SPECIFIED MAY RESULT IN REJECTIO					
change may be made by telegram or letter, p					
opening hour and date specified. 12. Accounting And Appropriation Data (If rec	mired)				
SEE SECTION G	(un cu)				
13. THIS	ITEM ONLY APPLIES T	O MODIFICATIONS OF C	ONTRACTS/OR	DERS	
KIND MOD CODE: C		act/Order No. As Described I			
A. This Change Order is Issued Pursuan			The C	hanges Set Forth l	In Item 14 Are Made In
The Contract/Order No. In Item 102 B. The Above Numbered Contract/Orde		The Administrative Changes	such as changes	in paying office a	nnronriation data etc)
Set Forth In Item 14, Pursuant To T	he Authority of FAR 43.1	03(b).		m paying office, a	ppi opi iation data, etc.)
X C. This Supplemental Agreement Is Ent	ered Into Pursuant To Au	thority Of: FAR 43.103(a)	(3)		
D. Other (Specify type of modification a	nd authority)				
E. IMPORTANT: Contractor is not,	X is required to sign	this document and return _		copies to the Issui	ng Office.
14. Description Of Amendment/Modification (Control of Control of C	Organized by UCF section	headings, including solicitati	on/contract subj	ect matter where f	easible.)
SEE SECOND PAGE FOR DESCRIPTION					
Except as provided herein, all terms and condit	ions of the document refe	renced in item 9A or 10A, as	heretofore chang	ged, remains unch	anged and in full force
and effect. 15A. Name And Title Of Signer (Type or print)		16A. Name And Titl	e Of Contracting	Officer (Type or	print)
		WYMAN E. YOUNG I	I		• /
15B. Contractor/Offeror	15C. Date Signed	YOUNGE@TACOM. ARM 16B. United States C		4-8093	16C. Date Signed
155. Contractor/Officion	13C. Date Signed	Tob. Omicu States C	a Amelica		100. Date Signed
	_	By	/SIGNED/	0.00	2003APR08
(Signature of person authorized to sign)		(Signature	of Contracting	Officer)	

CONTINUATION SHEET Reference No. of Document Being Continued Page 2 of 17 PIIN/SIIN DAAE07-01-F-L001 MOD/AMD P00001

Name of Offeror or Contractor: TRW INC.

SECTION A - SUPPLEMENTAL INFORMATION

- 1. The bilateral Modification P00001 has two purposes, as follows:
- a. First, it extends Task Order DAAE07-01-F-L001 (awarded under GSA Contract DAAE07-23F-8079H) until 22 Dec 03, and revises the labor categories, labor hours, labor rates, labor costs, and other direct costs (as shown in paragraph A.5a below) for completing this Task Order. Note: For reference, paragraph A.5b shows the previous labor categories, labor hours, labor rates, labor costs, and other direct costs in effect prior to Modification P00001.
- b. Second, it deobligates excess funding, based on the revised labor cost ceilings and estimates for Other Direct Costs (ODCs), as follows:

			Decrease	
Sub-CLIN	<u>Description</u>	<u>Previous</u>	(Mod. P00001)	<u>Revised</u>
0001AA	CLIN 0001 Labor	\$376,000	(\$ 10,177)	\$365,823
0001AB	CLIN 0001 Labor	\$ 56,069	(\$ 56,069)	\$ 0
0001AC	CLIN 0001 ODCs	\$ 25,754	(\$ 0)	\$ 25,754
Sub-Total	CLIN 0001 Labor & ODCs	\$457,823	(\$ 66,246)	\$391,577
0002AA	CLIN 0002 Labor	\$206,228	(\$ 20,345)	\$185,883
0002AB	CLIN 0002 ODCs	\$ 71,915	(\$ 27,771)	\$ 44,144
Sub-Total	CLIN 0002 Labor & ODCs	\$278,143	(\$ 48,116)	\$230,027
Sub-Total	CLIN 0001 Labor & ODCs	\$457,823	(\$ 66,246)	\$391,577
Sub-Total	CLIN 0002 Labor & ODCs	\$278,143	(\$ 48,116)	\$230,027
Total	CLIN 0001/0002 Labor & ODCs	\$735,966	(\$114,362)	\$621,604

- 2. Section A (Supplemental Information), Section B (Supplies or Services and Prices/Costs) Section C (Description/Specifications/Work Statement), Section F (Deliveries or Performance), and Appendix A (Contract Data Requirements List, DD Form 1423) have been revised to reflect the Task Order extension. The changed pages are attached.
- 3. Except for the changes resulting from Task Order Modification P00001, all other terms and conditions of this Task Order remain the same.

A.1 <u>DESCRIPTION OF ACTION</u>

This action is a Task Order issued under and pursuant to the General Service Administration's (GSA's) Contract GS-23F-8079H, Special Item Number (SIN) 874-1, Consulting Services.

A.2 PURPOSE OF TASK ORDER

The purpose of this Task Order is to provide the management and professional technical services to execute the U.S. Army Tank-automotive and Armaments Command's (TACOM's) 6.2 Technology Base Program entitled, "Transport Vehicle Protection from Infantry Weapons." This Program includes five separate tasks as follows: Task 1.2 (DEUCE Survivability Replacement Cab), Task 1.3 (Tactical Vehicle Survivability Demonstrators), Task 1.4 (Mine Effects Gauge Apparatus (MEGA) Research and Development), Option Task 1.1 (Transparent Armor Research and Development) and Task 2 ((Hybrid Dynavision Real-time Acquisition (HyDRA) Requirements Definition, Design, Fabrication, Integration, Testing and Analysis)

A.3 SCOPE OF WORK

The Contractor shall perform this Task Order in accordance with the Statement of Work in Section C of this Order.

A.4 PERFORMANCE PERIOD

The period of performance is through 22 Dec 03. See Section F.4, for the schedule for completing the individual Tasks. *

Reference No. of Document Being Continued

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\$ 2,886 (Estimated Cost for ODCs, Option: Task 1.1)

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Name of Offeror or Contractor: TRW INC.

Estimated ODCs

A.5a LABOR AND OTHER DIRECT COSTS (As Revised by Modification P00001)

We're awarding this Task Order on a Time and Materials basis, as follows:

TASKS 1.2 (DEUCE Survivability Replacement Cab), 1.3 (Tactical Vehicle Survivability Demonstrators), and 1.4 (Mine Effects Gauge Apparatus (MEGA) Research and Development)

<u>Labor (Contractor Site)</u> :			1 Oct 00 - 30 Sep 01	1 Oct 01 - 31 Dec 03	*
Senior Manager	24 hours for	\$ 4,254	\$173.91/hr	\$180.53/hr	*
Business Specialist	245 hours for	\$ 19,074	\$ 75.91/hr	\$ 78.79/hr	*
Senior Clerical	127 hours for	\$ 5,693	\$ 43.57/hr	\$ 45.22/hr	*
Project Manager	33 hours for	\$ 4,704		\$142.54/hr	*
Labor (Government Site):					
Senior Functional Analyst	77 hours for	\$ 7,433	\$ 96.52/hr	\$100.18/hr	*
Junior Information Analyst	239 hours for	\$ 11,621	\$ 48.62/hr	\$ 50.44/hr	*
Information Analyst	9 hours for	\$ 475	\$ 52.76/hr	\$ 54.72/hr	*
Information Technologist	80 hours for	\$ 4,763	\$ 57.37/hr	\$ 59.53/hr	*
Junior Information Technologist	4,334 hours for	\$215,270	\$ 48.62/hr	\$ 50.44/hr	*
Systems Technologist I	708 hours for	\$ 92,536		\$130.70/hr	*
Total Labor (both Sites)	5,876 hours for	\$365,823 (Cei	ling Price for Labor,	Tasks 1.2 - 1	.4) *
Estimated Other Direct Costs (ODCs)		\$ 25,754 (Est	imated Cost for ODCs,	Tasks 1.2 - 1	.4)
OPTION: TASK 1.1 (Transparent Armor R	esearch and Devel	opment)			
Labor (Government Site):					
Senior Functional Analyst	200 hours for	\$ 19,304	\$ 96.52/hr		
Junior Information Technologist	400 hours for	\$ 19,448	\$ 48.62/hr		
Information Analyst	440 hours for	\$ 23,214	\$ 52.76/hr		
Total Labor	1,040 hours for	\$ 61,966 (Cei	ling Price for Labor,	Option: Task	1.1)

CONTINUATION	SHEET
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Reference No. of Document Being Continued

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Task 1.1)

Name of Offeror or Contractor: TRW INC.

TASK 2 (Hybrid Dynavision Real-time Acquisition (HyDRA) Requirements Definition, Design, Fabrication, Integration, Testing and Analysis)

<u>Labor (Government Site)</u>:

Information Technologist	2,203 hours for	\$126,976	\$ 57.37/hr	\$ 59.53/hr	*
Junior Information Technologist	74 hours for	\$ 3,598	\$ 48.62/hr	\$ 50.44/hr	*
Information Analyst	<u>3</u> hours for	\$ 159	\$ 52.76/hr	\$ 54.72/hr	*
Functional Analyst	726 hours for	\$ 55,150	\$ 74.99/hr	\$ 77.87/hr	*
Total Labor	3,006 hours for	\$185,883	(Ceiling Price for La	abor, Task 2)	*
Estimated ODCs		\$ 44,144	(Estimated Cost for G	DDCs, Task 2)	*

A.5b LABOR AND OTHER DIRECT COSTS (In Effect Prior to Modification P00001)

We're awarding this Task Order on a Time and Materials basis, as follows:

TASKS 1.2 (DEUCE Survivability Replacement Cab), 1.3 (Tactical Vehicle Survivability Demonstrators), and 1.4 (Mine Effects Gauge Apparatus (MEGA) Research and Development)

Labor (Contractor Site):			1 Oct 00 - 30 Sep 01	1 Oct 01 - 30 Sep 02
Senior Manager	14 hours for	\$ 2,474	\$173.91/hr	\$180.53/hr
Senior Economic Analyst	91 hours for	\$ 8,393	\$ 90.44/hr	\$ 93.92/hr
Business Specialist	106 hours for	\$ 8,133	\$ 75.91/hr	\$ 78.79/hr
Junior Business Specialist	49 hours for	\$ 2,309	\$ 45.72/hr	\$ 48.49/hr
<u>Labor (Government Site)</u> :				
Senior Functional Analyst	2,070 hours for	\$201,274	\$ 96.52/hr	\$100.18/hr
Junior Information Analyst	1,406 hours for	\$ 68,746	\$ 48.62/hr	\$ 50.44/hr
Information Analyst	<u>2,645</u> hours for	\$140,740	\$ 52.76/hr	\$ 54.72/hr
Total Labor (both Sites)	6,381 hours for	\$432,069 (Ceiling	Price for Labor, Tasks	1.2 - 1.4)
Estimated Other Direct Costs (ODCs)		\$ 25,754 (Estimate	ed Cost for ODCs, Tasks	1.2 - 1.4)

OPTION: TASK 1.1 (Transparent Armor Research and Development)

<u>Labor (Government Site):</u>

Senior Functional Analyst	200 hours for	\$ 19,304	\$ 96.52/hr
Junior Information Technologist	400 hours for	\$ 19,448	\$ 48.62/hr
Information Analyst	440 hours for	<u>\$ 23,214</u>	\$ 52.76/hr
Total Labor	1,040 hours for	\$ 61,966 (Ceiling)	Price for Labor, Option:

Reference No. of Document Being Continued

PIIN/SIIN DAAE07-01-F-L001

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Name of Offeror or Contractor: TRW INC.

TASK 2 (Hybrid Dynavision Real-time Acquisition (HyDRA) Requirements Definition, Design, Fabrication, Integration, Testing and Analysis)

Labor (Government Site):

Senior Functional Analyst	420 hours for	\$ 40,779	\$ 96.52/hr	\$100.18/hr
Information Technologist	1,147 hours for	\$ 66,415	\$ 57.37/hr	\$ 59.53/hr
Junior Information Technologist	1,409 hours for	\$ 68,969	\$ 48.62/hr	\$ 50.44/hr
Senior Information Analyst	280 hours for	\$ 19,450	\$ 68.90/hr	\$ 71.53/hr
Information Analyst	200 hours for	\$ 10,615	\$ 52.76/hr	\$ 54.72/hr
Total Labor	3,456 hours for	\$206,228 (Ceiling E	Price for Labor, Task 2)	
Estimated ODCs		\$ 71,915 (Estimated	l Cost for ODCs, Task 2)	

A.6 <u>BILLING</u>

The Contractor shall bill the Government for labor hours performed under this Task Order in accordance with the labor categories and hourly rates specified above. The Contractor shall bill ODCs to the Government on a cost incurred basis (no fee). For the purposes of this Order, ODCs may include materials, supplies, shipping costs, Geodimeter rental charges, Machine Shop use charges, Information System use charges, and travel expenses. When appropriate, Procurement Burden and General and Administrative (G&A) expenses on Procurement Burden, may be allocated to ODCs in accordance with the Contractor's usual accounting practices consistent with Federal Acquisition Regulation (FAR), Subpart 31.2.

The Contractor shall not use funding for Task 1 (i.e., funding for Tasks 1.2 through 1.4) to perform any Task 2 effort and vice versa. Further, the Contractor shall not use any funding for ODCs to provide labor hours and vice versa.

A.7 GOVERNMENT LIABILITY

The "Ceiling Prices for Labor" and the "Estimated Cost for ODCs," shown above in pargraph A.5, represent the maximum amount of Government liability to the Contractor for labor hour and ODC costs for each Task (or group of tasks, in the case of Tasks 1.2 through 1.4).

A.8 <u>PAYMENT</u>

The Contractor shall submit monthly invoices for payment for work performed in the previous month. The Contracting Officer's Representative (COR) shall certify each voucher before payment.

A.9 <u>INVOICE INSTRUCTIONS</u>

On each billing document/invoice submitted for payment, the Contractor shall specify the appropriate CLIN/SubCLIN(s).

Additionally, invoices must contain the following information:

Name of Contractor

Contract/Task Order No.

Number of hours expended, hourly rate, labor category, Other Direct Costs, and total costs Period when effort was performed

A.10 REPRESENTATIONS AND CERTIFICATIONS

The Contractor, by accepting this Task Order, reaffirms that the representations and certifications furnished under GSA Contract GS-23F-8079H are current, correct and applicable for this Task Order DAAE07-01-F-L001.

Reference No. of Document Being Continued PIIN/SIIN DAAE07-01-F-L001

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ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
	SECTION B - SUPPLIES OR SERVICES AND PRICES/COSTS				
0001	DELIVERABLE SERVICE				
	SECURITY CLASS: Unclassified				
	The Contractor shall provide labor, supplies, and travel, as necessary, to accomplish the Section C Tasks 1.2 (DEUCE Survivability Cab), 1.3 (Tactical Vehicle Survivability Demonstrators), and 1.4 (Mine Effects Gauge Apparatus Research & Development) in accordance with subCLINs 0001AA, 0001AB, and 0001AC below. The total amount of this CLIN is \$391,577. * * Revised by Modification P00001				
0001AA	SERVICES LINE ITEM				\$365,823.00
	NOUN: TRW CONTRACT-ENGR & TECH SPT PRON: E102C165EH PRON AMD: 03 ACRN: AA AMS CD: 622601 DD				
	Labor for Section C Tasks 1.2 (DEUCE Survivability Replacement Cab), 1.3 (Tactical Vehicle Survivability Demonstrators), and 1.4 (Mine Effects Gauge Apparatus Research & Development), in accordance with the labor categories, hours, and hourly rates specified in Section A.5a. See * Sections A.6 through A.9, and G.3.1 for Invoice and Payment Instructions.				
	The ceiling price for this subCLIN is \$365,823. *				
	* Revised by Modification P00001 (End of narrative B001)				
	Inspection and Acceptance INSPECTION: Destination				
	Deliveries or Performance DLVR SCH PERF COMPL REL CD QUANTITY DATE				
	\$ 365,823.00				

Reference No. of Document Being Continued PIIN/SIIN DAAE07-01-F-L001

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NOUS: THE CONTRACT ENGR & TECH SPT PROSE: NIGOZCHORE PRON AMD: 03 ACRN: AR ANS CD: 65480-80011DD Labor for Section C Tasks 1.2 (DEUCR SUrvivability Replacement cab), 1.3 (Tractical Vehicle Gurvivability Demonstratory, smd 1.4 (Mine Rifects Gauge Apparatus Research & Development), in accordance with the labor categories, hours, and hourly rates specified in Section A.5a. See * Sections A.6 through A.9, and 0.11 for Invoice and Payment Instructions. The ceiling orice for this subCLIN is 60. * * Revised by Madification POUDD! (End of marrative B001) TIMESECTION: Destination ACCEPTANCE: Bestination Deliveries as Performance DIVE SCH PERF COMPL REFL. CD COMPTITY DATE REFL. CD COMPTITY DATE OIL 0 22-DEC-2003	ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
NOUN: TRW CONTRACT ENGR & TECH SPT PRON: E102C240EH PRON AMD: 03 ACRN: AB AMS CD: 654804H0111DD Labor for Section C Tasks 1.2 (DEUCE Survivability Replacement Cab), 1.3 (Tactical Vehicle Survivability Demonstrators), and 1.4 (Mine Effects Gauge Apparatus Research & Development), in accordance with the labor categories, hours, and hourly rates specified in Section A.5a. See * Sections A.6 through A.9, and G.3.1 for Invoice and Payment Instructions. The ceiling price for this subCLIN is \$0. * * Revised by Modification P00001 (End of narrative B001) Inspection and Acceptance INSPECTION: Destination ACCEPTANCE: Destination Deliveries or Performance DLVE SCH PERF COMPL REL CD OUANTITY DATE						
PRON: E102C240EH PRON AMD: 03 ACRN: AB AMS CD: 654804H0111DD Labor for Section C Tasks 1.2 (DEUCE Survivability Replacement Cab), 1.3 (Tactical Vehicle Survivability Demonstrators), and 1.4 (Mine Effects Gauge Apparatus Research & Development), in accordance with the labor categories, hours, and hourly rates specified in Section A.5a. See * Sections A.6 through A.9, and G.3.1 for Invoice and Payment Instructions. The ceiling price for this subCLIN is \$0. * * Revised by Modification P00001 (End of narrative B001) Inspection and Acceptance INSPECTION: Destination ACCEPTANCE: Destination Deliveries or Performance DLVR SCH PERF COMPL REL CD QUANTITY DATE	0001AB	SERVICES LINE ITEM				
Labor for Section C Tasks 1.2 (DEUCE Survivability Replacement Cab), 1.3 (Tactical Vehicle Survivability Demonstrators), and 1.4 (Mine Effects Gauge Apparatus Research & Development), in accordance with the labor categories, hours, and hourly rates specified in Section A.5a. See * Sections A.6 through A.9, and G.3.1 for Invoice and Payment Instructions. The ceiling price for this subCLIN is \$0. * * Revised by Modification P00001 (End of narrative B001) Inspection and Acceptance INSPECTION: Destination ACCEPTANCE: Destination Deliveries or Performance DLVR SCH PERF COMPL REL CD QUANTITY DATE		NOUN: TRW CONTRACT ENGR & TECH SPT				
Labor for Section C Tasks 1.2 (DEUCE Survivability Replacement Cab), 1.3 (Tactical Vehicle Survivability Demonstrators), and 1.4 (Mine Effects Gauge Apparatus Research & Development), in accordance with the labor categories, hours, and hourly rates specified in Section A.5a. See * Sections A.6 through A.9, and G.3.1 for Invoice and Payment Instructions. The ceiling price for this subCLIN is \$0. * * Revised by Modification P00001 (End of narrative B001) Inspection and Acceptance INSPECTION: Destination ACCEPTANCE: Destination Deliveries or Performance DLVR SCH PERF COMPL REL CD QUANTITY DATE						
Replacement Cab), 1.3 (Tactical Vehicle Survivability Demonstrators), and 1.4 (Mine Effects Gauge Apparatus Research & Development), in accordance with the labor categories, hours, and hourly rates specified in Section A.5a. See * Sections A.6 through A.9, and G.3.1 for Invoice and Payment Instructions. The ceiling price for this subCLIN is \$0. * * Revised by Modification P00001 (End of narrative B001) Inspection and Acceptance INSPECTION: Destination ACCEPTANCE: Destination Deliveries or Performance DLVR SCH PERF COMPL REL CD QUANTITY DATE		1.11.0 OD 03.100 111012122				
Survivability Demonstrators), and 1.4 (Mine Effects Gauge Apparatus Research & Development), in accordance with the labor categories, hours, and hourly rates specified in Section A.5a. See * Sections A.6 through A.9, and G.3.1 for Invoice and Payment Instructions. The ceiling price for this subCLIN is \$0. * * Revised by Modification P00001 (End of narrative B001) Inspection and Acceptance INSPECTION: Destination ACCEPTANCE: Destination Deliveries or Performance DLVR SCH PERF COMPL REL CD QUANTITY DATE						
Effects Gauge Apparatus Research & Development), in accordance with the labor categories, hours, and hourly rates specified in Section A.5a. See * Sections A.6 through A.9, and G.3.1 for Invoice and Payment Instructions. The ceiling price for this subCLIN is \$0. * * Revised by Modification P00001 (End of narrative B001) Inspection and Acceptance INSPECTION: Destination ACCEPTANCE: Destination Deliveries or Performance DLVR SCH PERF COMPL REL CD QUANTITY DATE						
and hourly rates specified in Section A.5a. See * Sections A.6 through A.9, and G.3.1 for Invoice and Payment Instructions. The ceiling price for this subCLIN is \$0. * * Revised by Modification P00001 (End of narrative B001) Inspection and Acceptance INSPECTION: Destination ACCEPTANCE: Destination Deliveries or Performance DLVR SCH PERF COMPL REL CD QUANTITY DATE		Effects Gauge Apparatus Research & Development),				
and Payment Instructions. The ceiling price for this subCLIN is \$0. * * Revised by Modification P00001 (End of narrative B001) Inspection and Acceptance INSPECTION: Destination ACCEPTANCE: Destination Deliveries or Performance DLVR SCH PERF COMPL REL CD QUANTITY DATE						
The ceiling price for this subCLIN is \$0. * Revised by Modification P00001 (End of narrative B001) Inspection and Acceptance INSPECTION: Destination ACCEPTANCE: Destination Deliveries or Performance DLVR SCH PERF COMPL REL CD QUANTITY DATE						
* Revised by Modification P00001 (End of narrative B001) Inspection and Acceptance INSPECTION: Destination ACCEPTANCE: Destination Deliveries or Performance DLVR SCH PERF COMPL REL CD QUANTITY DATE						
(End of narrative B001) Inspection and Acceptance INSPECTION: Destination ACCEPTANCE: Destination Deliveries or Performance DLVR SCH PERF COMPL REL CD QUANTITY DATE						
Inspection and Acceptance INSPECTION: Destination ACCEPTANCE: Destination Deliveries or Performance DLVR SCH PERF COMPL REL CD QUANTITY DATE		* Revised by Modification P00001				
INSPECTION: Destination ACCEPTANCE: Destination Deliveries or Performance DLVR SCH PERF COMPL REL CD QUANTITY DATE		(End of narrative B001)				
INSPECTION: Destination ACCEPTANCE: Destination Deliveries or Performance DLVR SCH PERF COMPL REL CD QUANTITY DATE						
Deliveries or Performance DLVR SCH PERF COMPL REL CD QUANTITY DATE						
DLVR SCH PERF COMPL REL CD QUANTITY DATE		INSPECTION: Destination ACCEPTANCE: Destination				
DLVR SCH PERF COMPL REL CD QUANTITY DATE		Deliveries or Performance				
		DLVR SCH PERF COMPL				

Reference No. of Document Being Continued PIIN/SIIN DAAE07-01-F-L001

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NO PR AM OI Sy Ac	DUN: TRW CONTRACT ENGR & TECH SPT RON: E112C120EH PRON AMD: 04 ACRN: AC RS CD: 622601 DD Other Direct Costs (Supplies, Travel, Information ystems, Procurement Burden, and General & dministrative Expenses on the Procurement Burden		\$\$
PRO AM Of Sty	ON: E112C12OEH PRON AMD: 04 ACRN: AC MS CD: 622601 DD ther Direct Costs (Supplies, Travel, Information ystems, Procurement Burden, and General & dministrative Expenses on the Procurement Burden		
S ₃	ystems, Procurement Burden, and General & dministrative Expenses on the Procurement Burden		
1 De Ar A	nly, as necessary, to accomplish the Section C asks 1.2 (DEUCE Survivability Replacement Cab), .3 (Tactical Vehicle Survivability emonstrators), and 1.4 (Mine Effects Gauge pparatus Research & Development). See Sections6 through A.9, and G.3.2 for Invoicing and ayment Instructions.		
	he total estimated cost of this subCLIN is 25,754.		
	(End of narrative B001)		
	aspection and Acceptance ISPECTION: Destination ACCEPTANCE: Destination		
DL	### PERF COMPL ### CD		
0002 <u>DE</u>	CLIVERABLE SERVICE		
SE	CURITY CLASS: Unclassified		
ta Ta (I	The Contractor shall provide labor, materials, and ravel, as necessary, to accomplish the Section C wask 2 (Hybrid Dynavision Real-time Acquisition HyDRA) Requirements Definition, Design, was aborication, Integration, Testing, and Analysis)		
	he total amount of this CLIN is \$230,027. *		
*	Revised by Modification P00001 (End of narrative B001)		

Reference No. of Document Being Continued PIIN/SIIN DAAE07-01-F-L001

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ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0002AA	SERVICES LINE ITEM				\$185,883.00
	NOUN: TRW CONTRACTOR ENG &TECH SPT PRON: E10CBREHEH PRON AMD: 04 ACRN: AD				
	AMS CD: 654649				
	CUSTOMER ORDER NO: E10BRE2C015				
	Labor for Section C Task 2 (Hybrid Dynavision				
	Real-time Acquisition (HyDRA) Requirements				
	Definition, Design, Fabrication, Integration,				
	Testing, and Analysis), in accordance with the labor categories, hours, and hourly rates				
	specified in Section A.5a. See Section A.6 *				
	through A.9, and G.3.3 for Invoicing and Payment Instructions.				
	The ceiling price for this subCLIN is \$185,883. *				
	* Revised by Modification P00001				
	(End of narrative B001)				
	Inspection and Acceptance				
	INSPECTION: Destination ACCEPTANCE: Destination				
	Deliveries or Performance				
	DLVR SCH PERF COMPL				
	REL CD QUANTITY DATE				
	001 0 22-DEC-2003				
	\$ 185,883.00				

Reference No. of Document Being Continued PIIN/SIIN DAAE07-01-F-L001

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ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0002AB	SERVICES LINE ITEM				\$\$44,144.00
	NOUN: OTHER DIRECT COSTS ON THE TRW PRON: E10CBREIEH PRON AMD: 03 ACRN: AD AMS CD: 654649 CUSTOMER ORDER NO: E10BRE2C012EHEH Other Direct Costs (Material, Supplies, Geodimeter Rental, Machine Shop, Personal Computer (PC) and Silicon Graphics Inc. (SGI) Use Charges, Travel and Shipping Expenses, Procurement Burden, General & Administrative (G&A) Expenses on the Procurement Burden, and G&A Cost of Money (on the Procurement Burden), as necessary, to				
	accomplish Section C Task 2 (Hybrid Dynavision Real-time Acquisition (HyDRA) Requirements Definition, Design, Fabrication, Integration, Testing, and Analysis). See Section A.6 through A.9 and G.3.4 for Invoicing and Payment Instructions.				
	The total estimated cost of this subCLIN is \$44,144. *				
	* Revised by Modification P00001				
	(End of narrative B001)				
	Inspection and Acceptance INSPECTION: Destination ACCEPTANCE: Destination				
	Deliveries or Performance DLVR SCH PERF COMPL REL CD QUANTITY DATE 001 0 22-DEC-2003 \$ 44,144.00				

Reference No. of Document Being Continued

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Name of Offeror or Contractor: TRW INC.

SECTION C - DESCRIPTION/SPECIFICATIONS/WORK STATEMENT

C.1.0 Purpose and Scope

The Contractor, acting as an independent Contractor and not as an agent of the Government, shall perform the tasks below supporting the U.S. Army Tank Automotive Research, Development and Engineering Center's (TARDEC's) Survivability Technology Area (STA) in optimizing and integrating survivability enhancements onto wheeled and tracked vehicles.

C.1.1 Contractor Clearance

By the start of the Task Order period of performance, the Contractor shall provide the necessary paperwork to obtain clearance for their employees to enter TACOM and work on-site, and to access Government computers to generate work.

C.1.2 DEUCE Survivability Replacement Cab (Task 1.2)

The Contractor shall use Government-supplied drawings and materials to perform the following tasks related to the DEUCE Survivability Replacement Cab:

- C.1.2.1 Fabricate DEUCE cab demonstrator components, assemble the exterior prototype cab components, and integrate the final assembled prototype cab and component hardware into the DEUCE system platform. Complete fabrication and assembly of the exterior cab components within five (5) months after Task Order issuance. Complete integration of prototype cab and component hardware into the DEUCE system platform within seven (7) months after Task Order issuance. The Government will make a DEUCE vehicle available to the Contractor for use in accomplishing this effort.
- C.1.2.2 Revise the Government's fabrication, assembly and integration drawing packages with changes arising from actual fabrication and integration of the cab assembly and hardware components into the DEUCE system platform. Deliver the revised drawing packages to the Government within nine (9) months after Task Order issuance, in accordance with (IAW) Exhibit A, Contract Data Requirements List (CDRL, DD Form 1423), Data Item No. A002 (Scientific and Technical Reports).
- C.1.2.3 Provide a project briefing package, in the Contractor's own format, describing the accomplishment of Task 1.2. Deliver this briefing package to the Government within ten (10) months after Task Order issuance, IAW Exhibit A, CDRL, Data Item No. A004 (Presentation Material).

C.1.3 Tactical Vehicle Survivability Demonstrators (Task 1.3)

The Contractor shall examine candidate technologies' potential for enhancing the survivability of a medium tactical vehicle's crew cab and cargo/personnel carrying areas. To accomplish this task, the Contractor shall do the following:

- C.1.3.1 Conduct trade-off analyses of candidate technologies to optimize the survivability performance characteristics of a medium tactical vehicle (FMTV). The survivability performance characteristics include protection from infantry direct fire, overhead artillery, overhead direct fire, anti-vehicular and anti-personnel mine, and bottom protection from unexploded ordinance. At a minimum, the Contractor shall consider the following objectives in selecting the candidate technologies: (i) minimize space and weight claims to allow air transportability of the vehicle system, (ii) optimize the cost and complexity of fabricating and installing components, and (iii) optimize the ruggedness and shelf life of components, and ease of field/depot level maintenance and repair.
- C.1.3.2 Provide a draft and final concept analysis report detailing the candidate survivability enhancements, including sketches of the enhancements, and describe their perceived effect on vehicle system performance. The report shall include the Contractor's recommendations on which enhancements have the best potential to improve system survivability while minimizing adverse system performance. Provide the Government with the draft report within ninety (90) days after Task Order issuance. The Government will have twenty (20) working days to provide the Contractor with comments on the draft report. The Contractor shall submit the final concept analysis report within thirty (30) working days after the Contractor submits the draft report to the Government, IAW Exhibit A, CRDL, Data Item No. A002 (Scientific and Technical Reports).
- C.1.3.3 Use Government-provided engineering sketches and materials to fabricate full-scale prototype components and hardware of the most promising survivability enhancements. Deliver these prototype survivability enhancements to the Government within five (5) months after Task Order issuance.
- C.1.3.4 Use Government-provided drawings and materials to assemble and install the following components and hardware into a Government-provided troop transport demonstrator: insulation, flooring, electrical wiring, seating, seat hardware, auxiliary power unit (APU), generator, heating, ventilation, and air conditioning (HVAC), and armor transparencies. Complete the assembly and integration of all components, except the armor transparencies, into the troop transport demonstrator within eight (8) months after Task Order issuance. Complete installation of armor transparencies into the troop transport demonstrator within twelve (12) months after Task Order issuance.
- C.1.3.5 Revise the Government-provided fabrication, assembly, and integration drawing packages with changes arising from actual fabrication and integration of the troop transport demonstrator assembly and hardware components. Deliver these revised drawing

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Name of Offeror or Contractor: TRW INC.

packages to the Government within thirty-four and one-half (34.5) months * after Task Order issuance, IAW Exhibit A, CDRL, Data Item No. A002 (Scientific and Technical Reports).

- * Revised by Modification P00001
- C.1.3.6 Provide a project briefing package, in the Contractor's own format, describing the accomplishment of Task 1.3. Deliver the briefing package to the Government within thirty-five and one-half (35.5) months * after Task Order issuance, IAW Exhibit A, CDRL, Data Item No. A004 (Presentation Material).
- * Revised by Modification P00001
- C.1.4 Mine Effects Gauge Apparatus (MEGA) Research and Development (Task 1.4)

The Contractor shall perform the following efforts regarding the MEGA:

- C.1.4.1 Attend all meetings of "The Technical Coordination Group" (TTCP), provide engineering and technical expertise regarding mine characterization testing using the MEGA, and provide draft minutes of these meetings to the Government within fifteen (15) working days after the TTCP meetings. The Government will have five (5) working days to provide the Contractor with comments on the draft meeting minutes. The Contractor shall submit the final meeting minutes within five (5) working days after receiving the Government's comments on the draft minutes, IAW Exhibit A, CDRL, Data Item No. A003 (Conference Minutes).
- C.1.4.2 Use Government-supplied drawings of the current MEGA to analyze and provide draft and final engineering design specifications and drawings, in the Contractor's own format, for refurbishing and redesigning the MEGA to accommodate medium truck tire and wheel assembly. Provide the Government with the draft engineering design specifications and drawings within ninety (90) days after Task Order issuance. The Government will have five (5) working days to provide the Contractor with comments on the draft engineering design specifications and drawings. The Contractor shall submit the final engineering design specifications and drawings within ten (10) working days after receiving the Government's comments on the draft specifications and drawings, IAW Exhibit A, CDRL, Data Item No. A002 (Scientific and Technical Reports).
- C.1.4.3 Conduct MEGA test data collection at the Defense Research Establishment Suffield (DRES) test range at Suffield, Canada.
- C.1.4.4 Prepare a draft and final MEGA program test report as input to the TTCP Program report. This report shall include photographs as well as charge characteristics, soil characteristics, test geometry, and all time histories of impulse, acceleration and load data collected by the MEGA on individual tests. Provide the draft report to the Government within thirty-four and one-half (34.5) months * after Task Order issuance. The Government will have fifteen (15) working days to provide the Contractor with comments on the draft report. The Contractor shall submit the final report within thirty-five and one-half (35.5) months * after Task Order issuance, IAW Exhibit A, CDRL, Data Item No. A002 (Scientific and Technical Reports).
- * Revised by Modification P00001
- C.1.4.5 Develop a draft and final project briefing package, in the Contractor's own format, describing the accomplishment of Task 1.4. Upon Government approval of the final briefing package, present the briefing at the TTCP Coordination meeting in Heidlberg, Germany. Provide the draft briefing package to the Government within thirty-five (35) months * after Task Order issuance. The Government will have ten (10) working days to provide the Contractor with comments on the draft briefing package. The Contractor shall submit the final briefing package within thirty-six (36) months * after Task Order issuance, IAW Exhibit A, CDRL, Data Item No. A004 (Presentation Material).
- *Revised by Modification P00001
- C.1.5 Transparent Armor Research and Development (Option Task 1.1)

Upon option exercise, the Contractor shall prepare and conduct transparent armor ballistic tests, analyze test data, and provide reports of test results. To accomplish this task, the Contractor shall do the following:

- C.1.5.1 Attend and contribute to Integrated Process Team (IPT) meetings for test planning and test scheduling involving transparent armor research and development.
- C.1.5.2 Design, fabricate, and assemble two test fixtures for collecting data related to transparent armor testing. Initially, the Contractor shall provide preliminary design concept sketches of two test fixtures for conducting transparent armor testing. Upon Government approval of the preliminary sketches, the Contractor shall submit final design concept sketches and material requirements to fabricate the test fixtures. Upon Government approval of the final sketches and material requirements, the Contractor shall fabricate two test fixtures using Government-furnished materials and tools. Provide the preliminary design concept sketches to the Government within thirty (30) days after option exercise. The Government will have ten (10) working days to provide the Contractor with comments on the preliminary design concept sketches. The Contractor shall submit the final design concept sketches and material requirements within sixty (60) days after option exercise, IAW Exhibit A, CDRL, Data Item No. A002 (Scientific and Technical Reports). Deliver the two test

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fixtures to the Government within 60 days of the Government's approval of the final design sketches and material requirements.

- C.1.5.3 Integrate the Government-provided targets into the ballistic test fixtures.
- C.1.5.4 Prepare data collection ballistic range instrumentation prior to the test series, and inspect instrumentation operation between each test.
- C.1.5.5 Conduct test data collection, to include detailed impactor characteristics, barrel characteristics, environmental data, target characteristics, orientation, in-flight penetrator performance, target impact characteristics, and event imagery.
- C.1.5.6 Reduce raw ballistic test data and provide tabulated data. This shall include target material response and captured imagery, compiled for each individual test event.
- C.1.5.7 Analyze the ballistic test data, and prepare a report detailing each individual test event. Prepare a preliminary and final test project report summarizing all test events. Provide the preliminary test report to the Government within seven and one-half (7.5) months after Task Order issuance. The Government will have ten (10) working days to provide the Contractor with comments on the preliminary test report. The Contractor shall submit the final test report within eight and one-half (8.5) months after Task Order issuance IAW Exhibit A, CDRL, Data Item No. A002 (Scientific and Technical Reports).
- C.1.6 Hybrid Dynavision Real-time Acquisition (HyDRA) Requirements Definition, Design, Fabrication, Integration, Testing, and Analysis (Task 2)
- C.1.6.1 HyDRA Requirements Definition and Analysis for Grizzly Integration (Sub-Task 2.1)

The Contractor shall perform the following tasks related to defining and analyzing the requirements for integrating the HyDRA into the Grizzly system:

- C.1.6.1.1 Attend weekly PM Grizzly engineering group meetings by phone with United Defense L.P. (UDLP) and their subcontractors during the HyDRA requirements definition phase, and provide engineering and technical expertise.
- C.1.6.1.2 Identify requirements changes resulting from integrating the HyDRA System onto the Grizzly, and include these changes in the draft HyDRA Subsystem Segment Specification (SSS). Provide the draft SSS to the Government by 15 Jan 01, for the Grizzly System Requirement Review (SRR), IAW Exhibit A, CDRL, Data Item No. A002 (Scientific and Technical Reports).
- C.1.6.1.3 Discuss HyDRA impacts to system requirements in weekly engineering group meetings during the HyDRA requirements analysis phase to develop the HyDRA Software Requirement Specification (SRS). Provide a draft version of the HyDRA SRS to the Government by 15 Feb 01, for the Grizzly Software Design Review (SDR), IAW Exhibit A, CDRL, Data Item No. A002 (Scientific and Technical Reports).
- C.1.6.2 HyDRA Preliminary Design for Grizzly Integration (Sub-Task 2.2)

The Contractor shall perform the following tasks for developing a preliminary HyDRA design for Grizzly integration:

- C.1.6.2.1 Attend weekly engineering group meetings by phone during the preliminary HyDRA design phase to identify details and develop the final HyDRA SSS and SRS. Deliver the final HyDRA SSS and SRS by 23 Feb 01, for the Grizzly HyDRA Preliminary Design Review (PDR), IAW Exhibit A, CDRL, Data Item No. A002 (Scientific and Technical Reports).
- C.1.6.2.2 Perform Computer Aided Design (CAD) development, finite element analysis, structural modal analysis and sensor algorithm development during the preliminary HyDRA design rapid prototyping process to create a draft HyDRA Assembly Drawing Package (ADP) and a draft HyDRA Software Design Document (SDD). Deliver the draft ADP and draft SDD to the Government by 23 Feb 01, for the Grizzly HyDRA PDR, IAW Exhibit A, CDRL, Data Item No. A002 (Scientific and Technical Reports). Use the rapid prototype approach to generate and deliver prototype HyDRA components to the Government by 23 Feb 01, for the Grizzly HyDRA PDR.
- C.1.6.3 HyDRA Detailed Design for Grizzly Integration (Sub-Task 2.3)

The Contractor shall perform the following tasks for developing a detailed HyDRA design for Grizzly Integration:

- C.1.6.3.1 Provide CAD development of HyDRA components using AutoCAD/Mechanical Desktop, finite element analysis using MATLAB, structural modal analysis using ANSYS, and sensor algorithm development using LabVIEW during the detailed design phase to develop the HyDRA prototype mockups for the Grizzly system.
- C.1.6.3.2 Develop and provide a final HyDRA ADP to the Government by 23 Apr 01, for the HyDRA Critical Design Review (CDR), IAW Exhibit A, CDRL, Data Item No. A002 (Scientific and Technical Reports).
- C.1.6.3.3 Provide the final HyDRA SDD, including sensor algorithms, to the Government by 23 Apr 01, for the HyDRA CDR, IAW Exhibit A, CDRL, Data Item No. A002.

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C.1.6.3.4 Deliver prototype mockups developed during the detailed HyDRA design phase to the Government by 23 Apr 01, for the HyDRA CDR.

C.1.6.4 HyDRA Fabrication, Integration and Test on Grizzly (Sub-Task 2.4)

The Contractor shall perform the following tasks for fabricating, integrating, and testing HyDRA assemblies on Grizzly prototypes:

- C.1.6.4.1 Discuss HyDRA hardware and software interfaces to the Grizzly blade assembly in engineering integration meetings and perform trade-off analysis of the final drawing package for integration of the HyDRA into the Grizzly. Provide the trade-off analysis results to the Government, within sixty (60) days after the CDR, IAW Exhibit A, CDRL, Data Item No. A002 (Scientific and Technical Reports).
- C.1.6.4.2 Perform a structural modal analysis of the HyDRA component hardware assemblies to determine resonance frequencies of the HyDRA hardware due to shock and vibration. Provide the results of this analysis to the Government, within sixty (60) days after the CDR, IAW Exhibit A, CDRL, Data Item No. A002 (Scientific and Technical Reports).
- C.1.6.4.3 Fabricate two HyDRA prototype assemblies and modify one HyDRA prototype assembly (GFP) using the final HyDRA ADP, and assemble one complete HyDRA prototype. Deliver the complete HyDRA prototype to the Government by 23 Jul 01, for the HyDRA Test for Readiness Review (TRR).
- C.1.6.4.4 Integrate the complete HyDRA prototype onto the Grizzly prototype at the UDLP facility in York, PA.
- C.1.6.4.5 Upon integrating the complete HyDRA prototype onto the Grizzly prototype, conduct field performance testing and perform HyDRA hardware modifications during testing.
- C.1.6.5 <u>Data Reduction and Analysis of HyDRA on Grizzly (Sub-Task 2.5)</u>

The Contractor shall perform the following tasks relating to reducing and analyzing HyDRA data:

- C.1.6.5.1 Perform download from field test data acquisition system and verify data collected during Grizzly shakedown testing.
- C.1.6.5.3 Write scripts in MATLAB to accept formatted data and generate analysis for both HyDRA and support sensor data.
- C.1.6.5.4 Provide a HyDRA sensor shakedown test report to the Government, based on the analysis of HyDRA data during testing, within sixty (60) days after the completion of Grizzly shakedown testing, IAW Exhibit A, CDRL, Data Item No. A002 (Scientific and Technical Reports).

C.1.6.5.2 Format raw HyDRA data from the Grizzly shakedown testing and prepare field test data acquisition output for MATLAB analysis.

C.1.6.6 PM Grizzly Test and Simulation Support (Sub-Task 2.6)

The Contractor shall perform the following test and simulation support for PM Grizzly:

- C.1.6.6.1 Provide system test and evaluation input for quarterly Grizzly Test Integration Work Group (TIWG) meetings to include presentation preparation, technical test expertise and action item follow up.
- C.1.6.6.2 Use input from the TIWG meetings to maintain and update the Grizzly Test and Evaluation Master Plan (TEMP) through 15 Nov 01. Provide updated Grizzly TEMP to the Government by 15 Nov 01, IAW Exhibit A, CDRL, Data Item No. A002 (Scientific and Technical Reports).
- C.1.6.6.3 Maintain and update the Simulation Support Plan (SSP) until the end of Grizzly Shakedown Testing. Provide the updated SSP to the Government at the end of Grizzly Shakedown Testing, IAW Exhibit A, CDRL, Data Item No. A002 (Scientific and Technical Reports).
- C.2 Performance and Cost Report

The Contractor shall deliver a report monthly, starting thirty (30) days after Task Order issuance, IAW Exhibit A, CDRL, Data Item No. A001 (Performance and Cost Report).

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Name of Offeror or Contractor: TRW INC.

SECTION F - DELIVERIES OR PERFORMANCE

F.1 DATA DELIVERABLES

The Contractor shall deliver all data under this Task Order in accordance with the quantities and schedules specified in Exhibit A, Contract Data Requirements List (DD Form 1423).

F.2 HARDWARE DELIVERABLES

- F.2.1 <u>Task 1.3 (Tactical Vehicle Survivability Demonstrators) Para C.1.3.3</u>: Deliver prototype survivability enhancements to the Government within five (5) months after Task Order issuance.
- F.2.2 Option: Task 1.1 (Transparent Armor Research and Development) Para C.1.5.2: Upon option exercise, deliver two (2) transparent armor test fixtures to the Government within sixty (60) days of the Government's approval of the final design sketches and material requirements.
- F.2.3 Sub-Task 2.2 (Hybrid Dynavision Real-time Acquisition (HyDRA) Preliminary Design for Grizzly Integration) Para C.1.6.2.2: Deliver prototype HyDRA components to the Government by 23 Feb 01, for the Grizzly HyDRA Preliminary Design Review (PDR).
- F.2.4 Sub-Task 2.3 (HyDRA Detailed Design for Grizzly Integration) Para C.1.6.3.4: Deliver prototype mockups developed during the detailed HyDRA design phase to the Government by 23 Apr 01, for the HyDRA Critical Design Review (CDR).
- F.2.5 Sub-Task 2.4 (HyDRA Fabrication, Integration and Test on Grizzly) Para C.1.6.4.3: Deliver one (1) complete HyDRA prototype to the Government by 23 Jul 01, for the HyDRA Test for Readiness Review (TRR).

F.3 <u>UNFINISHED DATA AND HARDWARE</u>

The Contractor shall deliver all unfinished data and hardware (i.e., the work in progress) generated under this Task Order to the Government upon completion or termination of this Task Order. This would cover the potential scenario where the Contractor expends available funding or the period of performance ends before the Contractor completes the Task Order. See Exhibit A, CDRL, Data Item No. A005, regarding data delivery.

F.4 PERIOD OF PERFORMANCE

The priod of performance for the Task Order, including the option period, is thirty (30) months * from Task Order award. Within the overall period of performance, the schedule for completing the various tasks is as follows:

- F.4.1 Task 1.2 (DEUCE Survivability Replacement Cab): 22 Dec 00 through 22 Oct 01 (10 mos.)
- F.4.2 Task 1.3 (Tactical Vehicle Survivability Demonstrators): 22 Dec 00 through 22 Dec 03 (36 mos.) *
- F.4.3 Task 1.4 (Mine Effects Gauge Apparatus (MEGA) Research and Development): 22 Dec 00 through 22 Dec 03 (36 mos.) *
- F.4.4 Option Task 1.1 (Transparent Armor Research and Development): Upon option exercise, Task 4 will last 9 mos.
- F.4.5 <u>Task 2 (HyDRA Requirements Definition, Design, Fabrication, Integration, Testing and Analysis)</u>: 22 Dec 00 through 22 Mar 02 (15 mos.)
- * Revised by Modification P00001

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SECTION G - CONTRACT ADMINISTRATION DATA

LINE <u>ITEM</u>	PRON/ AMS CD	ACRN	OBLG STAT/ JOB ORD NO	PRIOR AMOUNT	INCREASE/DECREASE AMOUNT	CUMULATIVEAMOUNT
0001AA	E102C165EH 622601 DD	AA	1 02C165	\$ 376,000.00	\$ -10,177.00	\$ 365,823.00
0001AB	E102C240EH 654804H0111DD	AB	1 02C240	\$ 56,069.00	\$ -56,069.00	\$ 0.00
0002AA	E10CBREHEH 654649	AD	1 0LSGCH	\$ 206,228.00	\$ -20,345.00	\$ 185,883.00
0002AB	E10CBREIEH 654649	AD	1 0LSGCE	\$ 71,915.00	\$ -27,771.00	\$ 44,144.00
				NET CHANGE	\$ -114,362.00	

SERVICE	NET CHANGE				ACCOUNTING		INCREASE/DECREASE	
NAME	BY ACRN	ACC	OUNTING CLASSIFICATION		STATION	AMOUNT		
Army	AA	21	02040000006D7675P622601255Y	S20113	W56HZV	\$	-10,177.00	
Army	AB	21	02040000006D6D10P654804255Y	S20113	W56HZV	\$	-56,069.00	
Army	AD	21	02040000006D6D13P654649255X	S20113	W56HZV	\$_	-48,116.00	
					NET CHANGE	\$	-114,362.00	

	PRIOR AMOUNT	PRIOR AMOUNT INCREASE/DECR		CREASE CUMULATI		
	OF AWARD		AMOUNT		OBLIG AMT	
NET CHANGE FOR AWARD:	\$ 735,966.00	\$	-114,362.00	\$	621,604.00	

Reference No. of Document Being Continued Page 17 of 17 **CONTINUATION SHEET** PIIN/SIIN DAAE07-01-F-L001 MOD/AMD P00001 Name of Offeror or Contractor: TRW INC. SECTION J - LIST OF ATTACHMENTS

List of Number Addenda Title Date of Pages Transmitted By Exhibit A CONTRACT DATA REQUIREMENTS LIST (DD FORM 1423) 12-AUG-2002

CONTRACT DATA REQUIREMENTS LIST (DD Form 1423)

Form Approval OMB No. 0704-0188

Public reporting burden for this collection of information is estimated to average 440 hours per response, including the time for retrieving instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden to Department of Defense, Washington, Suite 1204, Arlington, VA 22202-4302, and to the Office and Management and Budget, Paperwork Reduction Project (0704-0188), Washington, DC 20503. Please DO NOT RETURN your form to either of these addresses. Send completed form to the Government Issuing Contracting Officer for the Contract No. listed in Block E.

А. В.	CONTRACT LINE ITEM NO.: EXHIBIT:			SYSTEM/ITEM: TASK ORDER NO:		-F-L001, iss			
C.	CATEGORY:	Survivability Technology	F.	CONTRACTOR::		, Systems In			
2.	DATA ITEM NO : TITLE OF DATA ITEM : SUBTITLE :	A001 Performance and Cost Repor	t						
5. 6. 7.		Scope of Work (SOW), Secti AMSTA-TR-R 9. DIST.	STA ENCY	rement required:		DATE OF FIR. See Block 1 DATE OF SUB. See Block 1	6 S. SUB:		
14.	DISTRIBUTION	A. ADDRESSES		B. C	OPIES:	DRAFT	FINAL		
Robe	Gregory J. Wolfe, Contracting Officer's Representative (COR), E-mail: WolfeG@tacom.army.mil 1 Robert Beardslee, Contract Specialist, E-mail: beardslr@tacom.army.mil 1 Nina Markel, Administrative Contracting Officer, E-mail: nmarkel@dcmde.dcma.mil 1								
				15.	TOTAL:		3		

16. REMARKS: The Contractor shall deliver a report monthly, starting thirty (30) days after the task order award date, in accordance with (IAW) Data Item Description (DID) FNCL-80912 (Performance and Cost Report), tailored as follows: Besides the data required by DID FNCL-80912, the Contractor shall describe the work progress to date, and shall provide a schedule of planned work activities for the following monthly period. The Contractor shall also identify the number of dollars expended on material and travel during the previous monthy. Submit reports electronically, in the Contractor's format. The files shall be MS Windows 95/MS Office 97 Professional software compatible. Available methods of delivery are as follows: electronic mail, file transfer protocol, 3.5 HD floppy disk, CD ROM, or IOMEGA Zip Disk or Jaz. The COR is responsible for accepting or rejecting the Contractor's Progress, Status, and Management Reports. See DID DI-FNCL-80912, at the internet address below, for instructions on completing the required report.

http://astimage.daps.dla.mil/docimages/0001\49\93\DI80912.PD6

17. PRICE GROUP: 18. ESTIMATED TOTAL PRICE:

PAGE 2

1. 2. 3.	DATA ITEM NO: TITLE OF DATA ITEM: SUBTITLE:	A002 Scientific and Technical Reports							
4. 5.	AUTHORITY: CONTRACT REFERENCE:	DI-MISC-80711 See the applicable SOW paragraphs in Block 16 below							
6.			. DATE OF E						
7. 8.	DD250 REQ: APP CODE	No 10. FREQUENCY: See Block 16 13 11. AS OF DATE:		SUBS. SUB:					
14.	DISTRIBUTION	A. ADDRESSES B. COPIES:	DRAFT	FINAL					
	Gregory J. Wolfe, Contracting Officer's Representative (COR), E-mail: WolfeG@tacom.army.mil 1 1								
Defe	nse Technical Information	Center (DTIC), E-mail: tr@dtic.mil 15. TOTAL:		<u>1</u> 2					

16. REMARKS: The Contractor shall submit "Scientific and Technical Reports" to the Government IAW the following schedule:

Task 1.2 (DEUCE Survivability Replacement Cab) - Para C.1.2.2: Deliver the revised fabrication, assembly, and integration drawing packages within nine (9) months after Task Order issuance. The Government will have ten (10) working days to accept or reject the revised drawing packages.

Task 1.3 (Tactical Vehicle Survivability Demonstrators) - Para C.1.3.2: Deliver the draft concept analysis report within ninety (90) days after Task Order issuance. The Government will have twenty (20) working days to provide the Contractor with comments on the draft concept analysis report. The Contractor shall submit the final concept analysis report within ten (10) working days after receiving the Government's comments regarding the draft concept analysis report. The Government will have ten (10) working days to accept or reject the final concept analysis report.

<u>Task 1.3 - Para C.1.3.5</u>: Deliver the revised fabrication, assembly, and integration drawing packages within thirty-four and one-half (34.5) months after Task Order issuance. The Government will have fifteen (15) working *days to accept or reject the revised drawing packages.

* Revised by Modification P00001

Task 1.4 (Mine Effects Gauge Apparatus (MEGA) Research and Development) - Para C.1.4.2: Deliver the draft engineering design specifications and drawings within ninety (90) days after Task Order issuance. The Government will have five (5) working days to provide the Contractor with comments on the draft engineering design specifications and drawings. The Contractor shall submit the final engineering design specifications and drawings within ten (10) working days after receiving the Government's comments regarding the draft engineering design specifications and drawings. The Government will have five (5) working days to accept or reject the final engineering design specifications and drawings.

Task 1.4 - Para C.1.4.4: Deliver the draft MEGA program test report to the Government within thirty-four and one-half (34.5) months after Task Order issuance. The Government will have fifteen (15) working days to provide the Contractor with comments on the draft report. The Contractor shall submit the final report within thirty-five and one-half (35.5) months after Task Order issuance. The Government will have fifteen (15) working days to accept or reject the final report.

* Revised by Modification P00001

Task 1.1 (Option) (Transparent Armor Research and Development) - Para C.1.5.2: Upon option exercise, deliver the preliminary design concept sketches within thirty (30) days after option exercise. The Government will have ten (10) working days to provide the Contractor with comments on the preliminary design concept sketches. The Contractor shall submit the final design concept sketches within sixty (60) days after option exercise. The Government will have five (5) working days to accept or reject the final design concept sketches.

one-half (7.5) months after option exercise. The Government will have fifteen (15) working days to provide the Contractor with comments on the preliminary test report. The Contractor shall submit the final test report within eight and one-half (8.5) months after Task Order issuance. The Government will have five (5) working days to accept or reject the final report.

- Task 2 (Hybrid Dynavision Real-time Acquisition (HyDRA) Requirements Definition, Design, Fabrication, Integration, Testing and Analysis) Para C.1.6.1.2: Provide the draft Subsystem Segment Specification (SSS) to the Government by 15 Jan 01, for the Grizzly System Requirement Review (SRR). The Government has ten (10) working days to accept or reject the draft SSS.
- Task 2 Para C.1.6.1.3: Provide the draft version of the HyDRA Software Requirement Specification (SRS) by 15 Feb 01, for the Grizzly Software Design Review (SDR). The Government has ten (10) working days to accept or reject the draft HyDRA SRS.
- Task 2 Para C.1.6.2.1: Deliver the final HyDRA SSS and SRS by 23 Feb 01, for the Grizzly HyDRA Preliminary Design Review (PDR), scheduled on or about 23 Jan 01. The Government has ten (10) working days to accept or reject the final HyDRA SSS and SRS.
- Task 2 Para C.1.6.2.2: Deliver the draft HyDRA Assembly Drawing Package (ADP) and draft HyDRA Software Design Document (SDD) by 23 Feb 01, for the Grizzly HyDRA PDR. The Government has ten (10) working days to accept or reject the draft HyDRA ADP and SDD.
- Task 2 Para C.1.6.3.2: Deliver the final HyDRA ADP by the HyDRA Critical Design Review (CDR), scheduled on or about 23 Mar 01. The Government has ten (10) working days to accept or reject the final HyDRA ADP.
- Task 2 Para C.1.6.3.3: Deliver the final HyDRA SDD, including sensor algorithms, by 23 Apr 01, for the HyDRA CDR. The Government has ten (10) working days to accept or reject the final HyDRA SDD.
- $\underline{\text{Task 2 Para C.1.6.4.1}}$: Provide the trade-off analysis results within sixty (60) days after the CDR. The Government has ten (10) working days to accept or reject the trade-off analysis results.
- $\underline{\text{Task 2 Para C.1.6.4.2}}$: Provide the results of the structural modal analysis within sixty (60) days after the CDR. The Government has ten (10) working days to accept or reject the structural modal analysis.
- Task 2 Para C.1.6.5.4: Provide a HyDRA sensor shakedown test report within sixty (60) days after the completion of Grizzly shakedown testing. The Government has ten (10) working days to accept or reject the HyDRA sensor shakedown test report.
- Task 2 Para C.1.6.6.2: Provide the updated Grizzly Test and Evaluation Master Plan (TEMP) by 15 Nov 01. The Government has ten (10) working days to accept or reject the updated Grizzly TEMP.
- Task 2 Para C.1.6.6.3: Provide the updated Simulation Support Plan (SSP) at the end of the Grizzly Shakedown Testing. The Government has ten (10) working days to accept or reject the updated SSP.

The COR is responsible for reviewing and accepting or rejecting the draft and final reports. At the completion of each Task, the Contractor shall consolidate the approved final data deliverables for that Task into a package, and send the entire package in .pdf format to DTIC, with a completed Standard Form (SF) 293 (Report Documentation Page) cover sheet. Submit reports electronically, in the Contractor's format. The files shall be MS Windows 95/MS Office 97 Professional software compatible. Available methods of delivery are as follows: electronic mail, file transfer protocol, 3.5 HD floppy disk, CD ROM, or IOMEGA Zip Dik or Jaz. See the data item description (DI-MISC-80711), at the internet address below, for guidance on completing the required report.

http://astimage.daps.dla.mil/docimages/0001\48\74\W0293W.PD9

You may download the SF 298 from the following internet address:

http://webl.whs.osd.mil/icdhome/SFEFORMS.HTM

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	TITLE OF DATA ITEM: SUBTITLE:	
5.		DI-ADMN-81250A See the applicable SOW paragraphs in Block 16 below AMSTA-TR-R 9. DIST. STATEMENT REQUIRED: 12. DATE OF FIRST SUB:
	DD250 REQ: APP CODE:	See Block 16 No 10. FREQUENCY: See Block 16 13. DATE OF SUBS. SUB: 11. AS OF DATE: See Block 16

14. DISTRIBUTION A. ADDRESSES B. COPIES: DRAFT FINAL

Gregory J. Wolfe, Contracting Officer's Representative (COR), E-mail: WolfeG@tacom.army.mil 1 $\underline{1}$

15. TOTAL: 1

16. REMARKS: The Contractor shall submit the following deliverables:

1. DATA ITEM NO....: A003

Task 1.4 (Mine Effects Gauge Apparatus (MEGA) Research and Development - Para C.1.4.1: Provide draft meeting minutes within fifteen (15) working days after each meeting of "The Technical Coordination Group (TCCP)." The Government will have five (5) working days to provide the Contractor with comments on the draft meeting notes. The Contractor shall submit the final meeting minutes within five (5) working days after receiving the Government's comments on the draft meeting minutes. The Government has three (3) working days to accept or reject the final meeting minutes.

The COR is responsible for reviewing and accepting or rejecting the draft and final minutes. Submit TCCP meeting minutes electronically, in the Contractor's format. The files shall be MS Windows 95/ MS Office 97 Professional software compatible. Available methods of delivery are as follows: electronic mail, file transfer protocol, 3.5 HD floppy disk, CD ROM, or IOMEGA Zip Disk or Jaz. See the data item description (DI-ADMN-81250A), at the internet address below, for instructions on completing the required meeting minutes.

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17. PRICE GROUP: 18. ESTIMATED TOTAL PRICE:

2. 3.	TITLE OF DATA ITEM: SUBTITLE:	Presentation Materia	al				
4. 5.	AUTHORITY: CONTRACT REFERENCE:		SOW paragraphs in	Block 16 below			
6.	REQUIRING OFFICE:		2 5 2		12.	DATE OF F	
7. 8.	DD250 REQ. : : APP CODE. :		FREQUENCY: See AS OF DATE:	Block 16	13.	DATE OF S	UBS. SUB:
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Greg	ory J. Wolfe, Contracting	Officer's Representa	ative (COR), E-mai	.l: WolfeG@tacom.	army.mil	1	<u>1</u>
				15. TO	TAL:	1	1

16. REMARKS: The Contractor shall submit the following presentation material to the Government:

Task 1.2 (DEUCE Survivability Replacement Cab) - Para C.1.2.3: Deliver the briefing package within ten (10) months after Task Order issuance. The Government has ten (10) working days to accept or reject the briefing package.

<u>Task 1.3 (Tactical Vehicle Survivability Demonstrators) - Para C.1.3.6</u>: Deliver the briefing package within thirty-five and one-half (35.5) months after Task Order issuance. The Government has ten (10) working days to accept or reject the briefing package.

Task 1.4 (Mine Effects Gauge Apparatus (MEGA) Research and Development) - Para C.1.4.5: Deliver the draft briefing package within thirty-five (35) months after Task Order issuance. The Government will have ten (10) working days to provide the Contractor with comments on the draft briefing package. The Contractor shall submit the final briefing package within thirty-five and three-fourths (35.75) months after Task Order issuance. The Government has three (3) working days to accept or reject the final briefing package.

The COR is responsible for reviewing and accepting or rejecting the draft and final presentation material. Submit reports electronically, in the Contractor's format. The files shall be MS Windows 95/MS Office 97 Professional software compatible. Available methods of devliery are as follows: electronic mail, file transfer protocol, 3.5 HD floppy disk, CD ROM, or IOMEGA Zip Disk or Jaz. See the data item description (DI-ADMN-81373), at the internet address below, for instructions on completing the required presentation material.

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* Revised by Modification P00001

1. DATA ITEM NO....: A004

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1. DATA ITEM NO....: A005 2. TITLE OF DATA ITEM....: All Unfinished Data 3. SUBTITLE....: 4. AUTHORITY....: 5. CONTRACT REFERENCE....: F.3 6. REQUIRING OFFICE.....: AMSTA-TR-R 9. DIST. STATEMENT REQUIRED: 12. DATE OF FIRST SUB: See Block 16 13. DATE OF SUBS. SUB: 7. DD250 REQ....: No 10. FREQUENCY: See Block 16 11. AS OF DATE: 8. APP CODE....: See Block 16 14. DISTRIBUTION A. ADDRESSES B. COPIES: DRAFT FINAL

Gregory J. Wolfe, Contracting Officer's Representative (COR), E-mail: WolfeG@tacom.army.mil

15. TOTAL: 1

16. REMARKS: The Contractor shall deliver all unfinished data (i.e., the work in progress) generated under this Task Order to the Government upon completion or termination of this Task Order. This would cover the potential scenario where the Contractor expends available funding or the period of performance ends before the Contractor completes the Task Order. Submit all unfinished data electronically, in the Contractor's format. The files shall be MS Windows 95/MS Office 97 Professional software compatible. Available methods of delivery are as follows: electronic mail, file transfer protocol, 3.5 HD floppy disk, CD ROM, or IOMEGA Zip Disk or Jaz.

17. PRICE GROUP: 18. ESTIMATED TOTAL PRICE: